



February 5, 2010

Ms. Tshanda Kalombo
U.S. Department of Commerce
Office of the European Union
Room 3513
14th Street & Pennsylvania Avenue, N.W.
Washington, D.C. 20230
transatlanticinnovation@trade.gov

Re: Request for Comments on Priorities for the Transatlantic Innovation Dialogue

Dear Ms. Kalombo

In accordance with the *Federal Register* Notice of December 28, 2009, please find attached the comments of Intel Corporation regarding the Transatlantic Innovation Dialogue.

Sincerely,

Greg S. Slater
Director, Global Trade and Competition Policy
(602) 284-4871

Brian Huseman
Senior Policy Counsel
(202) 626-4391

Intel Corporation
1634 I St. NW, Suite 300
Washington, DC 20006

www.intel.com

Intel Corporation appreciates the opportunity to comment and provide suggestions on topics to be addressed by the Administration's new Transatlantic Innovation Dialogue (TID).

Intel's Belief in the Importance of Innovation

Intel is strongly committed to promoting innovation and competitiveness. We believe that the world of technology lies at the heart of the advances in health, energy, and the environment that form the basis of future prosperity. In 1965, Intel co-founder Gordon Moore made a powerful prediction. He observed that the number of transistors on a single piece of silicon would double approximately every two years – a profound insight that was dubbed “Moore’s Law.” This exponential growth in power, coupled with shrinking transistor size, results in increased performance and decreased costs, making possible the affordable and very powerful technologies found in almost all aspects of our daily lives. The invention of the silicon transistor, coupled with Moore’s Law, set into motion a chain reaction of unprecedented progress and wealth creation that has kept America at the center of the global economic stage.

Although 75 percent of Intel products today are sold outside the United States, we still build 75 percent of our products in U.S. factories and more than half our employees work here. Further, 70 percent of the dollars we devote to research and development and capital investment are spent here in America. Since 2002, we have invested more than \$50 billion in the U.S. in plants and equipment and research and development. Those investments support over 45,000 Intel high tech jobs in this country. In fact, just last year, Intel announced a \$7 billion investment in our manufacturing operations in the United States.

With the emergence of new economic powers, America no longer dominates the global economic stage. Innovation no longer belongs to a single country or region, and is more evenly distributed. Consider these figures. The total combined population of the United States and the EU’s 27 Member States is 795 million, which makes it the third largest market in the world. But this figure is far behind China’s population of 1.3 billion and India’s population of 1.1 billion. The U.S. and EU are still the economic powerhouses of the world, however, with a merged gross domestic product of the two reaching an estimated \$30 trillion in 2007, which is more than half of global GDP.

The U.S. and EU have considerable investments in R&D spending with each other. For example, R&D performed by EU affiliates in the US reached almost \$20 billion in 2005. Likewise, US-owned affiliates performed over \$17 billion in R&D in the European Union in 2005.

It is our view that the common economic agenda of the EU and U.S. should feature joint responses to common global challenges. A joint response to the challenge of continuing the strong traditions of U.S. and EU innovation is key, especially considering the emergence of India as a vibrant market and tendencies in some markets to push for indigenous innovation.

The time is right for coordinated U.S.–EU effort on innovation. The Obama Administration has repeatedly emphasized the importance of science, technology and innovation for the U.S. economy, as reflected in the American Recovery and Reinvestment Act, and the new

Administration's efforts to use technology and innovation to solve the nation's most pressing problems. The European Commission has inserted similar language in their European Economic Recovery Plan (EERP) and has put innovation at the forefront of its Lisbon program and the future EU2020 agenda.

Given the fact that we are at an important inflection point, Intel has been very supportive of the creation of the Transatlantic Innovation Dialogue. This dialogue should be based on the understanding that innovation is increasingly global and the challenges to promote and protect it need to be addressed holistically and globally.

Intel's Innovation Economy Conference

In late 2009, Intel Corporation and the Aspen Institute, along with PBS' "The NewsHour with Jim Lehrer" and *Democracy: A Journal of Ideas*, convened the "Innovation Economy Conference" in Washington, DC. A report outlining the findings and recommendations from that conference will be forthcoming, but we wanted to highlight for consideration by the Transatlantic Innovation Dialogue a few key take-aways.

Speakers and guests at the conference included senior Administration officials, members of Congress, and leaders from the fields of business, education, science, and the arts. Participants gathered to discuss what American businesses, government institutions, academic institutions, NGOs, and private citizens can do to generate innovation for the 21st century. The conference was organized around the central question: "What does innovation require?"

For innovation to drive economic growth, conference participants generally noted that there are four essential pillars: people, ideas, investment, and leadership. First, the people – or human capital – behind American innovation are shaped by education systems, immigration policy, job training, and public- and private-sector talent management. Second, generating ideas that will fuel innovation depends on our protections for intellectual capital, our scientific and technological capacity, and our capacity to incubate and invest in creative work. Third, investment in the U.S. entails risk-bearing, venture support, and participation by individuals, big and small business, and government. Finally, translating innovation inputs into real impact requires leadership: collaboration, vision, and above all, political will.

Intel will forward the conference report to the Administration upon its release for your consideration as you move forward with the TID process.

Topics for the Transatlantic Innovation Dialogue

We believe that the TID can serve as an important forum for addressing a number of transatlantic policy issues related to innovation. In this process, we encourage the Administration to address questions on the TID's concrete goals and governance structure so that the Dialogue does not result in poorly coordinated discussions with no specific outcomes. On the goals, we think that the TID should focus on the exchange of experiences and best practices on education, science, technology, incentives, and their role in promoting innovation. The discussion could:

- (i) identify potential synergies between different private-government innovation initiatives;
- (ii) examine how government policies can most effectively support (or impair) the private sector in creating innovation; and
- (iii) evaluate how other factors -- such as availability of venture capital, university curricula, science and technology education, immigration policy, and open markets -- contribute to an innovative climate.

More specifically, we suggest that the Transatlantic Innovation Dialogue examines in detail the following topics.

Innovation Policy Principles

Innovation happens when the right conditions are in place. However, innovation also can be hampered by well-intended, yet poorly conceived public policies. An increasing number of governments understand how important innovation is to the future of their economies. As they try to determine how to spur innovation and rise up the value chain more quickly, there is a greater danger that some of them will begin to believe they can actually create or manage innovation rather than just enable the environment that stimulates and protects it. Such an approach results in serious government intrusion in the marketplace.

Moreover, with a global economy that is still far from recovery, the temptation to incentivize local innovation at the expense of foreign goods and services is becoming stronger. Indeed, some governments may already be using “innovation” as a guise to develop domestic champions in a way that directly or indirectly discriminates against foreign companies and their goods and services.

If the U.S. and the EU jointly develop and disseminate a set of robust Innovation Policy Principles based on best practices and lessons learned, those Principles could not only guide relevant policy decisions within the two large economies but also provide sorely needed guidelines for emerging economies. Such Principles, as they relate to innovation, could help governments maximize the ROI from economically sound innovation policies while minimizing regulatory burdens and unintended trade barriers. As to the possible Principles, the following are some initial suggestions:

First, policymakers must recognize that innovation exists everywhere and often develops through a cross-border collaborative process. Intel has design teams in various countries that collaborate around the clock in developing microprocessor designs. Thus, for example, making incentives to innovate and to compete contingent on whether domestic companies own the relevant intellectual property makes no sense in a global economy. In brief, while innovation-related policies can limit some of their benefits to those entities with a certain domestic presence without violating WTO or other market access commitments, going too far is counterproductive. It may be useful to generate economic data to support this principle.

Second, to preserve the incentives to innovate, it is critical that the U.S. and the EU speak with one voice on the need to preserve the fundamental rights that accompany intellectual property ownership. There is an emerging belief among some officials in various countries that

broad access should be granted, often at low royalty rates, to intellectual property that is essential to compete or to solve critical problems like global warming and health issues. That kind of thinking could be applied to a variety of strategic industries and would very quickly undermine the drive to innovate. A principle that delineates the circumstances when technology transfer is both proper and inappropriate would be very helpful to many industries in the U.S. and the EU, as well as in other regions.

Third, to avoid stifling innovation, when deciding whether to regulate technology it is critical that governments follow other good regulatory practices that have been developed after much study. This includes promoting the use of global, industry-led, voluntary standards or codes of good practice -- rather than regulation -- whenever feasible. As various studies have shown, the results of inappropriate regulation are likely to be “higher costs, higher prices, misallocation of resources, *a lack of product innovation* and poor service quality.”¹ This principle could reinforce the good regulatory practices developed by APEC and the OECD, and reframe them in the context of how they help develop and protect innovation.

Fourth, as a general rule, government should pursue technology neutral policies. This limitation should apply not just to regulation, but also to government guidelines and preferences that can be just as damaging as legal requirements. While public authorities can, and should, pro-actively advance the development of technology by *inter alia* setting appropriate regulatory frameworks and financing R&D, they should refrain from favoring a particular technology over others. Consumers and businesses should ultimately decide which technologies and services they would like to purchase in order to best meet their needs. Technology neutrality has proven to be a good way to ensure that different technologies can compete on their merits, thereby giving an incentive for companies to innovate, and allowing consumers and businesses to benefit from state-of-the-art technologies as they are allowed to emerge.

Fifth, when regulation of technology is essential to achieve a legitimate public interest, it should focus on performance and not its design. Regulations may prescribe particular behaviors, procedures, or processes or they may simply specify a performance target and provide flexibility on how to achieve it. The inflexibility of prescriptive regulations results “in additional costs to the economy, for example through increased production costs, reduced competition, *reduced innovation*, or reduced customer choice.”² In contrast, performance regulations are based on

¹ S. Blondal and D. Pilat, *The Economic Benefits of Regulatory Reform*, OECD Economic Studies No. 28 (1997), at p. 8 (emphasis added). See also OECD Report on Regulatory Reform – Synthesis (Paris, 1997); APEC and OECD. *Synthesis Report: The APEC – OECD Integrated Checklist for Regulatory Reform: Results of Self Assessments, 2006-2007, in Five Economies*. First Economic Committee Meeting. Lima, Peru, February 25–26, 2008, 2-41; *Regulatory Impact Analyses: Best Practices in OECD Countries*. Paris: OECD, 1997; *Regulatory Impact Analysis in OECD countries, Challenges for Developing Countries*, Paris, 2005; *Regulatory Performance: Ex post Evaluation of Regulatory Policies*. Paris: OECD, September 22, 2003 (available: <http://www.oecd.org/dataoecd/34/30/30401951.pdf>).

² Guidelines for the Preparation, Adoption and Review of Technical Regulations, Asia-Pacific Economic Cooperation Organization (“APEC”), 97/SOM3/CTI/SCSC3/010, at p. 1 (adopted at the Sub-Committee on Standards and Conformance (SCSC) Meeting, St. John’s, Canada, 22-23 August 1997), page. 1.

outcomes rather than inputs, thus creating incentives to innovate to find more efficient ways of complying, and they are more likely to minimize barriers to trade and discrimination.

Sixth, any legitimate public interest used by governments to regulate specific technologies, goods, or services should be based on science and appropriate risk and impact assessments. Addressing understandable and legitimate concerns through legislation in such areas as protection of national security, health, safety, and the environment should not omit best available scientific advice, thorough risk assessments, or other relevant data. Acting on the basis of emotion, intuition, or inaccurate information to set limits for scientific discovery or development of products could close off immense economic or societal benefits and hamper innovation.

Finally, the Principles we hope the TEC will develop through the TID should apply both to direct government action as well as any such action taken through state-owned enterprises (even if they generally may act on a commercial basis). The real focus should be on the positive or negative impact of a policy under consideration, not on the vehicle for implementing it.

In summary, Intel strongly suggests that the Transatlantic Innovation Dialogue propose a set of Innovation Policy Principles, based on good regulatory practices, which can be used to provide global guidance (especially to emerging economies that are more inclined to rely on industrial policies to promote local innovation) on how to ensure proposed policies on innovation achieve intended results in the most economically efficient and least trade restrictive manner.

In addition to the Innovation Policy Principles, Intel also suggests the following topics for consideration by the TID:

Investment in R&D

The United States' commitment to R&D investment has been a huge factor in the country's economic successes and the semiconductor industry appreciates our government's commitment to pre-competitive funding of R&D. We also understand that Europe has its own developing perspective on this topic. The innovation results that derive from such commitments could be studied and shared in the Dialogue.

The Dialogue also should explore how government policies in the U.S. and Europe can encourage private investment in R&D and spur job creation. For example, while the U.S. was a pioneer in the use of an R&D tax credit, it now ranks 17th among OECD countries and 24th out of 38 countries surveyed (OECD Science, Technology and Industry Scorecard 2009). A recent study by the Information Technology and Innovation Foundation makes a compelling case that expanding the federal research and development tax credit from 14 to 20% would help create 162,000 jobs in the near term and enhance the nation's long-term economic competitiveness. That change in the tax credit also would increase the GDP by \$90 billion, add \$17 billion in new

tax revenues, and produce 3,850 new American patents as nations compete for dominance in tomorrow's technologies.³

Increasing the current R&D tax credit to 20 percent would move the U.S. up to just 10th place in the OCED, which includes many European countries with their own varying R&D credit rates. Discussions during the Dialogue on such incentives could help U.S. and EU government officials better understand their value.

Educational Infrastructure

Innovation-fueled growth starts with education. To grow their roles as innovators, the U.S. and Europe need highly educated workforces, particularly in the areas of mathematics and science. Although many countries and industry players have been promoting mathematics and the sciences, in general the supply of talent is still diminishing while the demand is still increasing. This "skills gap" in mathematics and science has potentially a chilling, long-lasting effect on both economies' innovation potential and growth. The Dialogue could provide a useful forum for the U.S. and EU to learn from each other.

Besides the basic mathematics and science education, keeping students at the cutting edge of developments in ICT technologies has become very important for their employability. In this domain, partnerships with private companies can be a part of the solution. Intel has made significant contributions on the use of ICT in both primary and secondary education, as well as higher education, and can contribute to this part of the Dialogue.

Another important issue for the TID to discuss is how the educational system can best be encouraged to "train effective entrepreneurship." Many of our two economies' best inventors may lack basic entrepreneurial skills. Through the sharing of best practices, we should hone our capacity to use education and workforce training to translate ideas into products, solutions, and services that will make a positive impact.

Coordinated Innovation Strategy

Over the past decade, many countries, such as Great Britain, Finland, Japan, and South Korea, have created national innovation strategies designed specifically to link science, technology, and innovation with economic growth. These countries proactively anticipate and articulate the intersections among policies in science and technology, R&D, education, workforce training, immigration, tax, trade, intellectual property, and digital infrastructure in creating economic and social welfare. In turn, they have formed innovation long term plans and/or institutes to coordinate policy in all these areas.

These countries have done so because they recognize that technological innovation drives long-run economic growth and that therefore innovation-led economic development must be a focal point of their economic growth strategies. They further recognize that addressing complex and systemic challenges – such as expanding health care, deploying digital infrastructure,

³ See , "Create Jobs by Expanding the R&D Tax Credit," Information Technology and Innovation Foundation (Jan. 26, 2010), *available at* <http://www.itif.org/files/2010-01-26-RandD.pdf>.

achieving sustainable energy production, combating climate change, and producing a skilled, world-class workforce – can only be accomplished through coordinated strategies that leverage the resources of government, industry, and academia.

We encourage the TID to examine these countries' efforts and whether these models would be useful for a joint transatlantic innovation strategy. The information collected from these countries could shape and support the Innovation Policy Practices previously discussed.

Conclusion

We are convinced that this Dialogue could make great strides in promoting continued U.S. and EU joint leadership in science and technology. Although the United States and the European Union have disagreed on a number of specific issues in the past, we do share some fundamental beliefs on open markets, intellectual property rights, technology neutrality, the value of ICT, and other aspects of an innovation economy. We also have common challenges in dealing with emerging economic powers that do not necessarily share the views of how governments should promote innovation and competitiveness. The TID should set the standard for the types of policies and practices that are most conducive to developing innovation economies and identify those that impair innovation.

We look forward to working with the Administration on this important effort, and we appreciate the opportunity to comment.